

**City of Miami Beach - Special City Commission Meeting
Commission Chambers, 3rd Floor, City Hall
1700 Convention Center Drive
July 10, 2003**

Mayor David Dermer
Vice-Mayor Matti Herrera Bower
Commissioner Simon Cruz
Commissioner Luis R. Garcia, Jr.
Commissioner Saul Gross
Commissioner Jose Smith
Commissioner Richard L. Steinberg

City Manager Jorge M. Gonzalez
City Attorney Murray H. Dubbin
City Clerk Robert E. Parcher

Visit us on the Internet at www.miamibeachfl.gov for agendas and video "streaming" of City Commission Meetings.

ATTENTION ALL LOBBYISTS

Chapter 2, Article VII, Division 3 of the City Code of Miami Beach entitled "Lobbyists" requires the registration of all lobbyists with the City Clerk prior to engaging in any lobbying activity with the City Commission, any City Board or Committee, or any personnel as defined in the subject Code sections. Copies of the City Code sections on lobbyists laws are available in the City Clerk's office. Questions regarding the provisions of the Ordinance should be directed to the Office of the City Attorney.

Call to Order - 5:00 p.m.

REGULAR AGENDA

R9 - New Business and Commission Requests

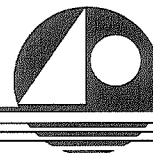
R9A Presentation By HDR On Transit Alternatives For The City Of Miami Beach And Commission Discussion.

(City Manager's Office)

End of Regular Agenda

CITY OF MIAMI BEACH

CITY HALL 1700 CONVENTION CENTER DRIVE MIAMI BEACH, FLORIDA 33139
www.miamibeachfl.gov



COMMISSION MEMORANDUM

To: Mayor David Dermer and
Members of the City Commission

Date: July 10, 2003

From: Jorge M. Gonzalez
City Manager

Subject: **PRESENTATION BY HDR ON TRANSIT ALTERNATIVES FOR THE CITY
OF MIAMI BEACH AND COMMISSION DISCUSSION**

On April 30, 2003, the Mayor and City Commission voted to select HDR, Inc. as the preferred consulting firm to assist the City of Miami Beach with the evaluation of transit options. HDR was selected to assist the City as a direct result of a number of unanswered questions and City Commission concerns expressed in previous discussions with consultants hired directly by the Metropolitan Planning Organization (MPO) for the Baylink project.

HDR was specifically engaged by the City of Miami Beach to provide independent and objective assistance for the City's transit considerations. HDR was asked to help evaluate transit modes and to assist the City in selecting the transit mode and route that best fits the community. HDR was provided the latitude and flexibility to offer their professional opinion that additional transit might not be appropriate or might be too intrusive to the City, thus not warranting any additional transit choice. (See attached Scope of Services)

HDR has completed a draft report at the request of the City Commission for presentation and discussion at the July 10th Special City Commission Meeting. At the June 9th Commission Workshop, members of the City Commission specifically requested that the July 10th meeting be designated as the meeting to receive the report and a presentation from HDR. Subsequent to the July 10th meeting the Mayor and City Commission and the community would have an opportunity to thoroughly read and reflect upon the report. It was discussed by the members of the Commission that July 10th would not be appropriate for formal action.

It is important for the City Commission to note that pursuant to the City Commission's direction a request to the MPO was made to delay the MPO date of consideration until their meeting late in September. As such, the City of Miami Beach is able to also extend its consideration of formal action until the first week of September and to still be able to comply with material submission deadlines for the MPO meeting.

In preparing the transit alternatives evaluation, HDR conducted community meetings on May 28th and June 25th and a City Commission Workshop on June 9th. At each of the community meetings, HDR presented information and facilitated discussion among the community members present as to transit preferences, potential transit impacts and other elements which were utilized in compiling their final draft report.

Agenda Item R9A
Date 7-10-03

The Executive Summary of the HDR draft report is attached for the City Commission's review. The full report will be made available as soon as it can be printed for the Mayor and City Commission, as well as members of the community. The report will also be made available on the City's website.

HDR will present their findings at the July 10th meeting and explain more fully the rationale associated with their recommendation to the Mayor and City Commission.

The City Administration seeks guidance and direction from the City Commission as to what appropriate next steps should be taken on this issue. In addition, the Commission should determine a date for the subsequent meeting.

 RCM/sam
BaylinkJuly10commmemo

Attachments

SCHEDULE "A"
SCOPE OF SERVICES
FOR
EVALUATION OF RAPID TRANSIT OPTIONS

1. Explain the significance of rapid transit to Miami Beach in addressing growth and traffic congestion issues, in light of known and imminent development in the community.
2. Review and comment on study accuracy and completeness of the Bay Link Draft Environmental Impact Study (DEIS) dated October, 2002.
3. Study and contrast in generic terms and also specifically to the conditions of Miami Beach the advantages and disadvantages of the following system modes (technology):
 - Bus, Bus Rapid Transit (BRT) and Light Rail Transit (LRT) or other variations (i.e. Trackless Trolley, etc.).
 - Develop data beyond the DEIS, if necessary, to support a full explanation of the different transit modes.
 - Examine route options including, but not limited to those addressed in the DEIS. Comparison should include the effectiveness of each transit mode and their projected passenger capture rates within Miami Beach; consultant will rely on data supplied by the City and on the data and analysis produced for the DEIS, rather than creating new data or models.
 - Summarize order-of-magnitude cost for bus, BRT, LRT, and other options; including necessary infrastructure and other similar factors to enable the Commission to have a full understanding of the practical transit modes available.
4. Assess the capacity and reliability of the current bus transit system, including the Electrowave shuttle, as the baseline for transit system enhancements.
5. Evaluate the long term impact on land use and infrastructure of bus, BRT, LRT and other options.
6. Evaluate the potential for each mode to be expanded through subsequent phases.
7. Evaluate how a bus, BRT, LRT, or other options fit into the regional transportation system.
8. Carry out a public involvement effort for this study which includes:
 - Two public workshops (The cost of notification, meeting rooms, and other meeting arrangement and activities beyond the time and direct expenses of the consultant, will be the responsibility of the City).

- Meetings will be held once with each of the City committees which are stakeholders in the design of this transit project:
 - (a) Planning Board
 - (b) Historic Preservation Board
 - (c) Transportation and Parking Committee
 - (d) Meetings with City Commissioners; Directors of Public Works, Planning, and CIP; the Miami-Dade County Metropolitan Planning Organization (MPO); Office of Public Transportation Management (OPTM); Miami-Dade Transit (MDT); as well as County Commissioner Bruno Barreiro.
9. Based on the findings of elements 1-7 above, provide proposed conditions to be considered for adoption by the Commission, which would attach to approval of a Locally Preferred Alternative to guide Final Environmental Impact Statement (FEIS) preparation, project design, and implementation.
 10. Provide a definitive description as to how the local and federal transit project funding process works. Explain the consequences in project funding and priority of prompt action to proceed with a Final Environmental Impact Statement (FEIS) versus the approach of continuing to review and discuss over the next years, and then proceeding with a FEIS. Include in the analysis a summary as to the impact of federal funding based on the technology (mode) chosen as the LPA.
 11. Complete and provide the above tasks in twenty printed copies and one unbound, camera-ready copy of a written document, inclusive of text, drawings, graphic charts, etc.
 12. Present findings and recommendations at public meetings and to the Miami Beach City Commission no later than July 10, 2003.
 13. Prepare a draft scope of work, schedule and budget for Phase II of the study for consideration by City staff and the Commission.

FINAL DRAFT REPORT FOR PHASE 1 EVALUATION OF TRANSIT OPTIONS

**Prepared for:
CITY OF MIAMI BEACH, FLORIDA**

**Prepared by:
HDR Engineering, Inc.
15600 NW 67th Avenue, Suite 304
Miami Lakes, Florida 33014**

July 10, 2003

EXECUTIVE SUMMARY

Overview

Since 1988, the Miami-Dade Metropolitan Planning Organization (MDMPO) has been conducting a series of studies examining the possibility of connecting Miami Beach to the mainland with premium transit services. Those inquiries have generally proceeded as a regional matter: i.e., how to better connect Miami Beach with downtown Miami destinations and the larger metropolitan area. That process has reached a critical point with the completion of a Draft Environmental Impact Statement (DEIS) for a version of this regional idea, "Bay Link."

Meanwhile, growth in Miami Beach itself, and in the metropolitan area continues to pump more and more automobile traffic onto the Miami Beach street grid. Although the City of Miami Beach has lowered the "yield" of future development and redevelopment, there is still a potential for significant housing, hotel and office uses under the existing Comprehensive Plan and Zoning provisions. Some of this development is already under construction. More significantly, the larger region will continue to produce more trips to and from Miami Beach. If past is prologue, these trips will be by automobile.

The City of Miami approved a Locally Preferred Alternative (LPA) for the *Bay Link* corridor; and the MDMPO has requested that Miami Beach do so as well. For Miami Beach, it is now time to decide how to move forward with such a project; one that induces visitors and regional residents to use transit to access Miami Beach destinations, and one that provides enhanced transit service to Miami Beach residents, providing them with attractive transit options within Miami Beach and to destinations in Miami and the larger region.

The City of Miami Beach contracted with HDR Engineering for support in addressing these questions and in evaluating the City's options for a major improvement in transit service in the City. HDR was directed to evaluate four modes of transit in the unique context of Miami Beach:

- (1) Bus Rapid Transit (also reviewed in the *Bay Link* DEIS);
- (2) Light Rail Transit (also reviewed in the *Bay Link* DEIS);
- (3) Streetcar; (a version of Light Rail Transit)
- (4) Trolleybus.

HDR also was also tasked with reviewing the *Bay Link* Draft Environmental Impact Statement (DEIS) and other studies, as well as the City's own plans for development, major capital improvements, and other issues affecting the implementation of a project in Miami Beach. The City's standing in the regional and federal transit funding process was also addressed.

This report addresses these issues and options.

Findings

Bay Link

The options developed in the *Bay Link* DEIS, while meeting all of the technical requirements for examining a key segment of the *regional* transit system, did not fully address Miami Beach's particular *local* needs. To meet those local requirements, the project's design must:

- (1) Be compatible with the character and scale of the City's built and historic environment;
- (2) Enhance the streetscape and pedestrian environment, rather than overwhelm it;
- (3) Provide circulation for residents, accessing community destinations as well as connecting to regional ones; and
- (4) Be feasibly and economically expandable into Middle and North Miami Beach.

Current Bus Service

The 13 Miami-Dade Transit bus routes serving Miami Beach currently carry over 50,000 passengers each weekday. Nearly all of these passenger trips occur between the Beach and the mainland; approximately 45% of the bus passenger trips cross over the Bay on the MacArthur Causeway. The Metrobus services operate frequently – in some cases, peak hour headways are 12 minutes or less. The combination of this relatively high level of service and the transit dependent nature of much of its Beach ridership market have led to Metrobus' success in attracting passengers; however, the service is not capturing much of the "choice rider" market (i.e., travelers who could use a bus but also have access to an automobile). Under the People's Transportation Plan, additional bus service is planned, with the hope and intention of having all 13 routes operate at better than 15-minute schedules during peak hours; new late evening and 24-hour services will also be initiated¹. Worsening traffic conditions will, however, produce diminishing returns in reliability for the additional service. In essence, the use of conventional bus service has reached its limits in Miami Beach.

The bus system is experiencing travel time delays that are directly related to the high levels of congestion that are present on the roadways buses use and the lack of any preferential treatment provided to buses that are present in most urban transit systems (e.g., bus signal pre-emption, bus queue jumper lanes, exclusive bus only lanes, etc). The Bay Link project would provide a dedicated transit treatment along the Causeways – that would lead to travel times that are competitive with the automobile – but in order to access that conduit, the transit vehicles...bus or rail...must be able to maintain their schedules, or "headways", in the busy, urban environment of Miami Beach.

In addition to Metrobus service to the Beach, the Miami Beach funded Electrowave electric bus circulator service operates on two loops between South Pointe and the Convention Center, and serves approximately 1,900 passengers/day. This service is limited to the east side of the Beach

¹ These increased headways would add a total of 188 daily new bus trips through Miami Beach (76 new bus trips during peak hours, and 112 bus trips during off-peak hours).



(i.e., Washington Avenue), and while it contributes to Beach mobility and is well supported by the hospitality industry, Electrowave is not a significant provider of transportation for Beach residents.

Regional and Federal Funding Picture

Should Miami Beach adopt the LPA, the project is likely to be given high priority by the Miami-Dade Metropolitan Planning Organization. It will then be carried forward into the Final Environmental Impact Statement process and, with federal approval at each stage, into Preliminary Engineering, Final Design, and a federal funding commitment for part of the construction cost. Although the specifics of future federal participation in transit projects are now being debated in Congress, it is likely that this process will remain substantially the same as today. The current authorizing legislation will sunset on September 30th of this year.

Because of the City's relatively high transit use, its land use patterns and population density characteristics, this project will perform well in the ratings process used by the Federal Transit Administration (FTA) to evaluate and recommend transit projects.

There are funds programmed and available in both the regional funds approved in the People's Transportation Plan and in state funding for transit capital projects that will be sufficient to cover the local share needed to match federal funding. Likewise, non-FTA federal funds are also available as a match.

Adopting a Locally Preferred Alternative prior to September 30th of this year will place this project, and the City of Miami Beach, in a much stronger position in the transit funding process than if the City were to delay its decision beyond that date. Although there are funds currently programmed into the regional transit funding effort managed by Miami-Dade County's Office of Public Transportation Management, failure to approve a Locally Preferred Alternative for a transit project connecting Miami Beach with mainland destinations will open the possibility that the Miami-Dade MPO and the OPTM will shift their attention to other project opportunities in the region and, in effect, leave this project behind. Similarly, the state and regional requests for inclusion in the upcoming reauthorization of the federal transportation bill now include this project. Failure to approve an LPA - and thus "stay in the game" for Federal Transit Administration approval of later stages of project development - will make it less likely that the ultimate authorizing bill will include the project.

Concern has been expressed in Miami Beach that adopting a Locally Preferred Alternative will irrevocably commit Miami Beach to construction of the project, or that other units of government, with or without this action by the Miami Beach City Commission, could proceed with the project while ignoring local objections, or failing to meet conditions required by the City. This is not the case. At any point in the process subsequent to adoption of the LPA, and prior to approval of a Full Funding Grant Agreement (FFGA) by the Federal Transit Administration the City of Miami Beach could formally withdraw its support for the project, and its legal, contractual and political foundation would be removed. A long list of implementing actions will require the City's involvement and approval in the design and construction of the project. Thirdly, the FTA will



require land use conformity actions in support of the project, and this authority generally lies with local jurisdictions.

In the highly competitive arena of federal transit funding, there is no realistic prospect that other agencies, using federal funds for a portion of a project's cost, could proceed to build and operate a transit project in Miami Beach over the City's objections.

Miami Beach's best defense against a project it does not want is, of course, to identify and advocate for a project that it *does* want, one which enhances the quality of life in Miami Beach and provides a popular transportation choice for its residents.

Choosing the Best Rapid Transit Option for Miami Beach

The four transit modes were evaluated against a set of criteria which incorporate key community benefits – positive effects to be maximized – and key community concerns – negative effects to be minimized. The results of that scoring process are summarized in Table ES-1.

Table ES-1 - Transit Technologies: Meeting Project Goals

	Light Rail Transit (LRT)	Bus Rapid Transit (BRT)	Streetcar	Electric Trolleybus	Standard (MDTA) Bus
Compatible with Character and Scale of Miami Beach?					
Would Enhance Streetscape and Pedestrian Environment?					
Would Provide Local and Regional Circulation for Residents?					
Would be Economically and Physically Feasible to Extend to Middle and North Beach?					
Would not Result in Significant Construction Disruption?					
Is the Mode Compatible with the Regional Transit System?					
Is the Mode Eligible for FTA Funding?					
Does the Mode Provide a High Level of Passenger Comfort?					
Composite Score	20	19	23	15	19

= Yes (3 points)
 = Moderate (2 points)
 = No (1 point)

The “No Build” Alternative

During this Evaluation, some participants have opined that the preferred alternative for the City of Miami Beach should be the “No Build” alternative.

The trends described in this report indicate that the “No Build” alternative is neither a prescription for keeping Miami Beach “as is” nor an effective mobility strategy. Given the population and demographic trends in Miami Beach and the region...and twenty lanes of automobile access to Miami Beach...there is no prescription that maintains the status quo. The community will change under this pressure; the question is whether it will change to resemble a smaller, tropical San Francisco or Seattle. These cities differ in the range of transportation options available in two geographically-constrained, physically beautiful, largely built-out cities. In San Francisco’s case, a diversity of transportation choices has made a popular place more urbane and livable for residents and millions of visitors each year. Seattle, although still enjoying a positive image with most Americans, has become increasingly choked with traffic...a lovely city losing some of its quality of life. In Seattle, the lack of transportation choices has led to disinvestment and severe traffic congestion; after twenty years of indecision, one of the nation’s most ambitious transit construction efforts is now just getting underway.

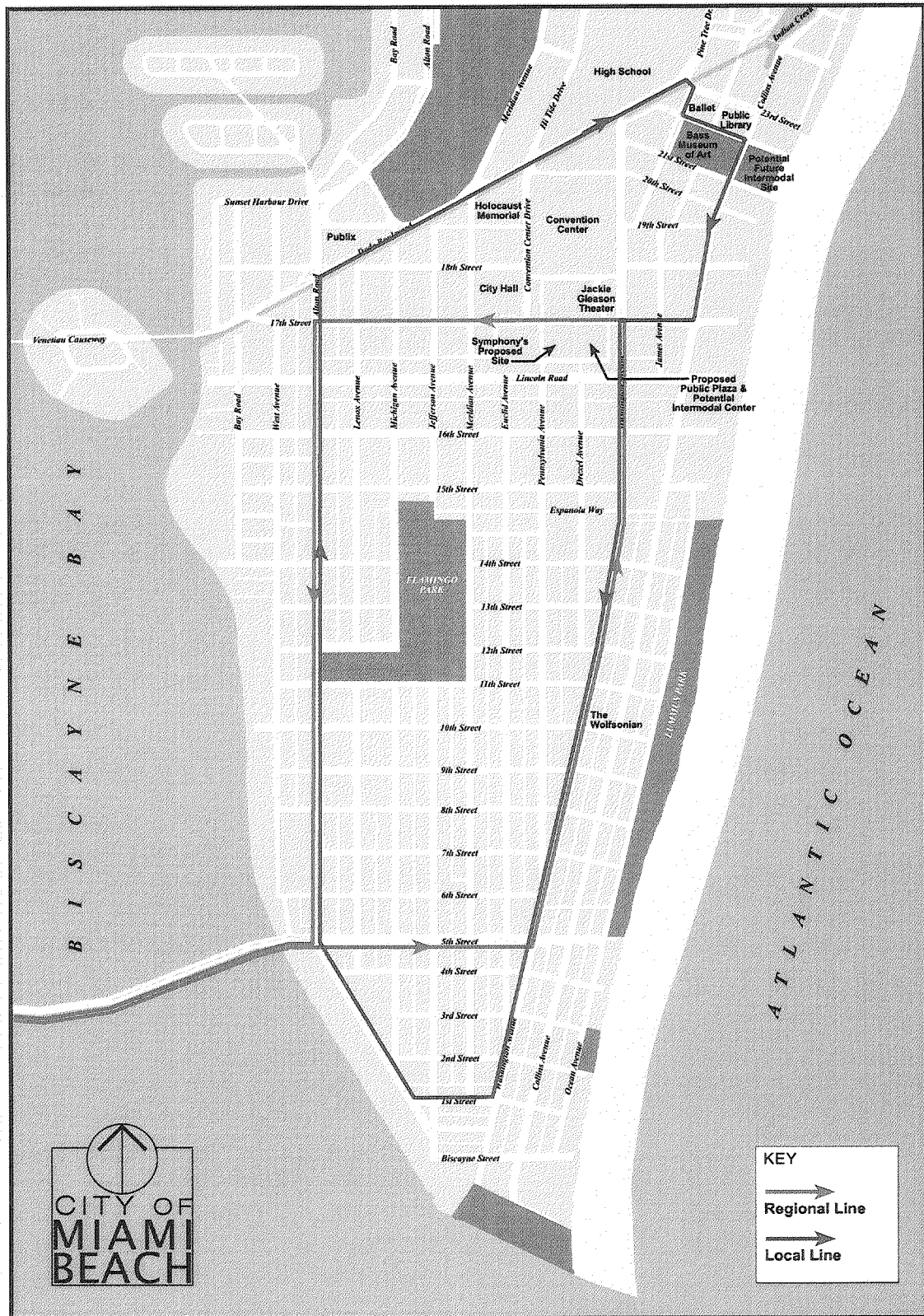
Recommendations



Washington Avenue with Streetcar Transit

Based on this Evaluation, the City of Miami Beach is advised to adopt Streetcar Transit as its Locally Preferred Alternative. The Streetcar should be designed to operate on two distinct alignments serving the Miami Beach portion of the study area. One route provides local circulation within Miami Beach, and the other route connects Miami Beach to downtown Miami via the MacArthur Causeway. These alignments are shown in Figure ES-1.

Figure ES-1
Recommended Route



The Streetcar is, among the various modes available, the best "fit" with the environment and character of Miami Beach. It is a mode of transit found in a small, but growing number of communities in the U.S., but is widely used in Europe. Cities from Munich to Amsterdam to Strasbourg to Prague rely on in-street-running trams as a key component of their transportation systems and as a part of a quality of life found in only a few American cities. The scale of the vehicles, and the location of the track - flush in the street surface of a shared travel lane - make it possible to add the ingredient of high-capacity transit to an already very lively streetscape without overwhelming the character of the community or radically changing street design. Several key characteristics of Streetcars support this choice of options and address important community concerns in Miami Beach:

- The trackway and overhead catenary system can be constructed in a process that is swift and has minimal impacts on surrounding properties and on use of the streets.
- Electric propulsion means the vehicles will be clean and quiet, essential characteristics in a busy, livable city.
- Landscaping such as the median on Washington Avenue can be retained, and even improved.
- In-street operations means no loss of travel lanes and minimal loss of on-street parking.
- Station stops are simple and compact, fitting well into the lively South Beach streetscape.
- Ability to successfully use this option northward into Middle and North Beach.

Rail transit, both Streetcar and Light Rail, has demonstrated positive economic effects in property values, commercial leasing and retail sales. While in the past, adjacency to heavy rail transit lines has had little measurable positive impact, and downtowns have withered even when served by heavy rail systems, Light Rail and Streetcar projects are producing striking economic benefits to the districts and individual properties they serve:

- Portland's Streetcar line has sparked \$1billion of transit-oriented development in five years, and property values for existing buildings in the corridor are increasing 40 % faster than similar property outside of the corridor.
- In Alameda County, for every meter a residence is located closer to the nearest BART station, its sales price was shown to increase by \$2.29, all else being equal.
- In Dallas, the opening of the DART light rail line sparked a real estate renaissance, with a premium being paid for property along the line. "Many investors have come to look at proximity to the DART light rail stop as offering a competitive advantage for their properties," said Jeff Stone, senior managing director of Holliday Fenoglio Fowler LP.

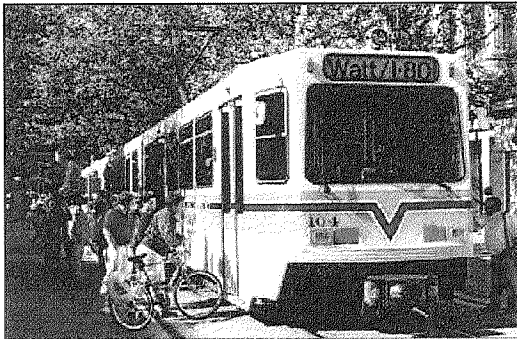
These cities and others have realized the benefits of connection: in an era when capital and talent are mobile, quality of life is the most durable economic strategy. A livable, sustainable community...a world class city...needs to provide world class transportation.

For this project to succeed from Miami Beach's perspective, the new transit service must attract large numbers of riders who do not now use transit. Streetcars and Light Rail Transit, in

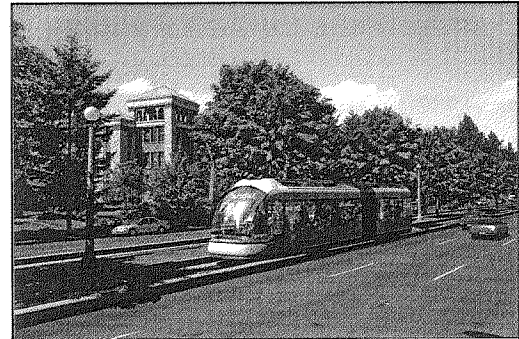


particular, have demonstrated the ability to attract these riders. While one can argue that prosperous, middle-and upper-income Americans should ride transit, by and large they do not. Americans *do* ride rail transit, streetcars in particular. Some of the reasons for this success are rational and measurable: the reliability of rail transit (adherence to schedule and few vehicle breakdowns), quality (smooth ride, climate control, attractive interiors), and “user-friendliness” (the ease of figuring out routes and destinations which a fixed rail route affords). Some of the reasons for this behavior are not quantifiable, even emotional...the reasons have to do with image and perception...some of the same reasons why Miami Beach is such a popular place today.

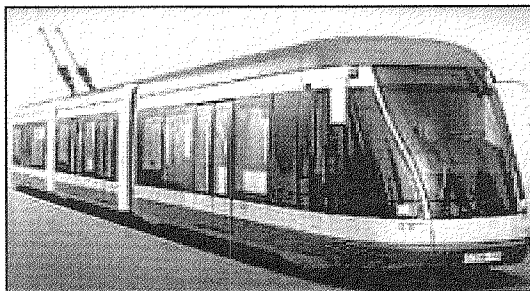
Other Transit Modes



Light Rail Transit



Bus Rapid Transit



Electric Trolleybus



“Trolley-Type” Diesel Bus

Three of the four transit modes examined are, for different reasons, less attractive choices for the City of Miami Beach.

Light Rail Transit – Conventional light rail, as envisioned in the *Bay Link* Draft Environmental Impact Statement, and as approved by the City of Miami, is out of scale with the character and context of Miami Beach’s built environment and development objectives. Construction of a dedicated trackway in the confines of Washington Avenue and other lively City streets would be highly disruptive. Expansion of the alignment into Middle and North Beach would be very difficult, given that such a project would appear to rate poorly against the federal criteria for a subsequent New Starts application, and would likely be too expensive to be feasible as a locally-funded project or as a project funded under the proposed “Small Starts” program.



Bus Rapid Transit – Construction of a separated busway or traffic management changes could move buses more quickly through the most urban portions of Miami Beach, and these vehicles could continue into Middle and North Beach. A key benefit of this project, attracting “choice riders” would, however, be jeopardized due to the uncertain ability of BRT to attract these riders. BRT vehicles carry smaller passenger volumes per vehicle than the rail options being considered; their ability to meet initial and future demand is thus somewhat hampered.

Bus Rapid Transit, while often an effective choice as a “suburban commuter-mover,” has a number of characteristics that make it less desirable as an “urban circulator,” a key function of this project from Miami Beach’s point of view. Even though the latest diesel or diesel-electric hybrid bus vehicles have reduced noise and emissions compared to traditional buses, this mode would be somewhat hostile to the pedestrian-friendly environment of Miami Beach. The vehicles’ operating characteristics – slower acceleration and a less smooth ride than rail vehicles, makes frequent stops less practical.

While BRT is an improvement on traditional bus design, there is also no evidence that proximity to bus service provides any economic “lift” to the streets or districts along the bus line.

Trolleybus – Participants in this study appeared to refer to two different definitions of “trolleybus.”

Electric Trolleybus would share some of the traits of Bus Rapid Transit, both positive (easy extension to northerly portions of the City) and negative (smaller passenger capacity per vehicle). Use of electric propulsion would eliminate some of the most significant negative traits of buses. The overhead catenary system would, however, be more elaborate (two wires are needed to power electric trolleybuses versus one for LRT or Streetcar), and therefore more visually intrusive.

“Trolley-style” Diesel Buses, while used in many communities as tourist shuttles, lack the carrying capacity needed for this corridor. This type of bus service is not eligible for federal New Starts funding.

Frequently Asked Questions

Over the course of this *Evaluation of Rapid Transit Options for Miami Beach* project, several presentations were made and workshops held with the City Commission, City advisory boards/committees, and the general public. A series of questions were repeated at most of these meetings which are presented below, along with the responses the technical team provided to those questions.



1. Can a LRT, BRT, Streetcar or Electric Trolley system be built without removing a traffic lane or a parking lane?

Given adequate street space ("right-of-way"), each of these systems could be constructed without removing any traffic or parking lanes. Even in dense, urban areas such as South Beach, these vehicles can (and do) operate in mixed traffic (i.e., with automobiles, trucks, buses, and bicycles sharing the same lane). Most systems also preserve parking lanes except where a station platform might extend from the sidewalk within the parking lane; which would result in the loss of between 3 and 5 on-street parking spaces/station area.

2. Would many residents of Miami Beach use a rapid transit option?

At present, there are 50,000 trips per day on buses in Miami Beach. While many of those trips are by non-residents (who would use a car if there were no bus service to and from the Beach), according to the 2000 Census, over 11% of all Miami Beach households use the bus for work trips every day. In addition, the Beach bus service aides residents who shop at the supermarket, attend the High School, cultural events, and participate in local civic matters.

Many Beach residents appear to believe that additional transit service would be a positive improvement. Over 70% of them voted in favor of the ½ cent sales tax increase initiative.

3. Wouldn't a rapid transit system adversely impact our unique character?

The character of Miami Beach is indeed unique. The alternative alignments, including the recommended alignment, are located in or adjacent to seven different historic districts that are regulated to protect the City's character. Although any major public investment could potentially cause harm, the intent of a rapid transit project should be to produce quite the opposite impact. With the introduction of a new fixed transit system, the City can systematically improve the streetscape to enhance the quality and long-term economic viability of the City's architectural legacy. For instance, the existing cobra-head light fixtures could be replaced with architecturally compatible fixtures; the overhead catenary supports would also be compatible.

With regard to the different modes, LRT vehicles may be out of scale with the pedestrian orientation of South Beach. That is, the typical two-car trainset is nearly 200 feet long, meaning that they would fill a large portion of the block while picking up and discharging passengers at stations. Streetcars, BRT and Electric Trolleybuses are much shorter in length (streetcars are typically 66.0'-80.0', and BRT buses and Trolleybuses are generally around 30.0' to 40.0', though they can be extended through articulation), and they are shorter in height and width



than LRTs (Streetcars, BRT and Trolleybuses are generally a foot shorter and a foot narrower than LRTs).

4. Wouldn't businesses be impacted by construction of a rapid transit system?

Construction impact can be minimized, and concentrated to a few streets at any one time. Once the crews are done, they move on to the next segment. The construction period would be longest for LRT systems, which need to dig between 18" and 30" to build the appropriate foundation for their operations. The track bed for Streetcar systems is very shallow (under 12 inches), which doesn't require the lengthy and costly process of relocating utilities. BRT and Trolleybus systems would disrupt businesses less so, as their associated construction are limited to a dedicated lane protected by a raised curb and traffic controls for BRT, and installation of overhead power systems for Trolleybuses.

5. The overhead catenary wire is a visual impediment. Why is it necessary for LRT, Streetcars, and Trolleybuses? Would they be dangerous (i.e., could they snap) during a hurricane?

The overhead catenary systems provide the electrical power which drive these vehicles. They are less obtrusive visually than they might appear to someone who's never seen them. Unlike the old trolley systems, which had webs of wires overhead, these systems rely on either a single thin wire (i.e., with LRT and Streetcar systems) or a wire couplet (for Electric Trolleybuses) that's usually partially hidden by trees, the outline of buildings, and other urban features. In places with LRTs and Streetcars that experience hurricanes (e.g., Houston, Tampa, San Juan), there has not been an incident where live catenary wires have injured anyone during high winds. The protocol is to turn the power systems off when winds reach sustained gusts of 50 mph, and the poles holding the wires in place withstand hurricane winds of 110 mph, nearly twice the design standard for most light poles, telephone poles, street poles, etc.

6. Why do we need to make a decision now? Can we delay our decision until we have more information?

Delaying this decision is not in Miami Beach's interest. If a mode and alignment choice that is favorable to Miami Beach can be selected, then the sooner Miami Beach "weighs in" with this recommendation, the more likely it is that the project will be funded and built, given the dynamics of regional and federal transit funding. If, upon further refinement of the proposed project in the next stages of the project development process, Miami Beach concludes that implementation is not in the community's interest, then there are ample opportunities to withdraw Miami Beach's support and discontinue project development.



7. The Bay Link project would only serve people from Miami?

At this time, the technical team does not have numerical data to distinguish how many passengers that would use the system would be Beach residents, Beach employees, visitors, tourists, etc. Many of the 50,000 daily bus passengers using MDTA buses on the Beach (whether they're from the Beach or elsewhere), would divert to a rapid transit system, and the system could be an important form of mobility for the new Beach residents expected to come as more Beach properties develop, and would provide an option to travelers from the mainland who would otherwise have little incentive not to use an automobile to access the Beach. The recommended project design provides Miami Beach residents with access to an increasing number of destinations in Miami (such as the new performing arts center), while also providing enhanced circulation among Miami Beach destinations.

8. What can the federal money be used for?

All four modes being examined – LRT, BRT, Streetcar and Electric Trolleybuses – can be constructed with federal funding. A rubber-tired bus that resembles a vintage trolley (such as the vehicle in use in Coral Gables) would not be a candidate for federal funds.

9. The selection of the Consultant Team was flawed and the Consultant Team has a strong bias toward transit.

The HDR Team responded to a public solicitation for bids from consulting firms and was short-listed for an interview. We were recommended for selection by a selection panel of citizens and City staff. Another interview was conducted of the three short-listed firms with the City Commission, which unanimously approved the HDR Team for selection. Prior to this project, HDR had never been under contract for consulting services with the City of Miami Beach.

HDR is a full service architectural, planning and engineering firm involved in transportation, water and environmental systems, buildings, and other infrastructure. With regard to our transportation practice, we provide support to clients in all modes – with our largest area of work in roadways and bridges.

HDR has had no contract with any of the organizations sponsoring the Bay Link transit project. HDR is also not involved with any manufacturers of transit vehicle equipment or facilities and has no economic interest in the outcome of this decision by the Miami Beach City Commission.

